ENVIRONMENTAL ASSESSMENT
FOR THE CONSTRUCTION OF
THE EXPLOSIVE CARGO HANDLING APRON AND THE
AVIATION TECHNICAL TEST CENTER HARDSTAND AT
THE REDSTONE ARSENAL AIRFIELD
AT REDSTONE ARSENAL, ALABAMA

DIRECTORATE OF ENVIRONMENT AND SAFETY
U.S. ARMY GARRISON – REDSTONE
REDSTONE ARSENAL, ALABAMA

MAY 2004

May 2004

FINDING OF NO SIGNIFICANT IMPACT (FNSI)
ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF THE EXPLOSIVE CARGO HANDLING APRON AND THE AVIATION TECHNICAL TEST CENTER HARDSTAND AT THE REDSTONE ARSENAL AIRFIELD
REDSTONE ARSENAL, ALABAMA

The Army proposes to construct an explosive cargo handling apron and the Aviation Technical Test Center Hardstand at the airfield at Redstone Arsenal, Alabama. The environmental analysis addresses two alternatives, the proposed action and the no-action alternative.

Proposed Action: The proposed action includes the construction and operation of an explosive cargo handling apron, the access road for the apron, the ATTC hardstand, and a parking lot at the Redstone Arsenal Airfield. The explosive cargo handling apron will be used as a dedicated area for explosive transshipment operations up to 100,000 pounds of net explosive weight and includes a construction disturbance area of approximately 260,000 ft^2. The access road will allow cargo shipments to be transferred from the apron without traveling on the airfield runway and includes a construction area of approximately 225,000 ft^2.

The ATTC hardstand and temporary shelter will disturb approximately 480,000 ft^2 and will be used as a dedicated area for aircraft parking, fueling, maintenance, testing, and system integration. The ATTC hardstand will provide a dedicated area and a semi-controlled environment for maintenance and testing, and system integration for fixed-wing and rotary-winged aircraft. The proposed parking lot will disturb approximately 150,000 ft^2 during construction and provides additional parking space to accommodate personnel and visitors.

No-Action Alternative: Under the no-action alternative, the explosive cargo handling apron, the access road for the apron, the ATTC tactical hardstand, and the parking lot would not be constructed. Explosive cargo loading and unloading will continue on the existing runway and disrupt the airfield operations through temporary closures. RSA research and development activities will be seriously impaired and the mission of the airfield to provide support to research and development will be degraded. Cargo vehicles would continue to use the runway to transport cargo. The potential for damage to aircraft from foreign objects would continue to be high and airfield operations would continue to be disrupted by temporary closures during cargo shipments.

RSA airfield operations could be hindered due to parking and maintenance space limitations as a result of increased operations. Additional space will be required to perform maintenance, testing, and system integration in a semi-controlled environment. If this space is not provided, then proposed airfield operations could become restricted due to a lack of necessary space. Time requirements for scheduling of interior space for testing, maintenance, and system integration will continue to increase.

Environmental Effects: Eleven broad environmental components or resources were considered to provide a context for understanding the potential effects of the proposed action and to provide a basis for assessing the significance of potential impacts. The areas of environmental consideration were air quality, health and safety, biological resources, cultural resources, hazardous materials and waste, geology and soils, transportation, infrastructure, land use, noise, socioeconomics, and water resources. Cumulative impacts of the proposed action were also analyzed.

No impacts were identified for land use and socioeconomic components. No significant impacts to the other environmental resources were found and anticipated impacts are mitigable. Best management practices will be used to minimize erosion. Appropriate spill prevention measures, including secondary containment for

fuels and vehicle lubricants, as well as spill mitigation kits will be used during operation of the ATTC hardstand. Appropriate Army regulations and protocols will be followed during explosive transshipment operations. A 1,474 foot safety arc will be enforced for explosive transshipment operations up to 50,000 pounds of net explosive weight and an 1857 foot safety arc for operations up to 100,000 pounds. Noise producing construction activities will be confined to normal working hours. Proposed construction activities would be scheduled in order to minimize disruption of airfield operations. No significant cumulative impacts were identified under the alternatives.

CONCLUSION

The Directorate of Environment and Safety (DES) has prepared an EA that addresses the proposed action and evaluates the environmental impacts of the alternatives considered. Based on the EA for the construction of the explosive cargo handling apron and the ATTC hardstand at Redstone Arsenal, Alabama, May 2004, there would be no significant environmental impacts associated with this project that would require the preparation of an Environmental Impact Statement.

DEPARTMENT OF THE ARMY
UNITED STATES ARMY GARRISON
REDSTONE ARSENAL, ALABAMA

FINDING OF NO SIGNIFICANT IMPACT (FNSI) FOR THE CONSTRUCTION OF THE EXPLOSIVE CARGO HANDLING APRON AND THE AVIATION TECHNICAL TEST CENTER HARDSTAND AT THE REDSTONE ARSENAL AIRFIELD AT REDSTONE ARSENAL, ALABAMA

PREPARED May 19, 2004

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INTRODUCTION

The National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), Department of Defense (DoD) Directive 4715.9, *Environmental Planning and Analysis* (U.S. Department of Defense 1996), and 32 CFR Part 651, Army Regulation (AR) 200-2, *Environmental Analysis of Army Actions* (Department of the Army 2002), which implements these laws and regulations, direct DoD and Army officials to consider environmental consequences when authorizing or approving Federal actions. Accordingly, this Environmental Assessment (EA) analyzes potential environmental impacts associated with the construction and operation of an explosive cargo handling apron and the Aviation Technical Test Center (ATTC) tactical hardstand at the Redstone Arsenal (RSA) airfield. The proposed action also includes the construction of a connection road for the explosive cargo handling apron and a parking lot to accommodate the ATTC tactical hardstand.

PROPOSED ACTION

Purpose and Need

The purpose of the explosive cargo handling apron is to provide a facility at the airfield that is specifically dedicated to the loading and unloading of explosives up to 100,000 lbs net explosive weight. The explosive cargo handling apron is needed to eliminate loading and unloading of explosives directly on the only runway on the installation. The explosive cargo handling apron will eliminate the disruption of the airfield during loading and unloading as well as the current safety requirements due to the lack of a dedicated facility. Current operations are conducted under a safety waiver that will expire if the facility is not constructed. The access road will provide a roadway connection for the explosive cargo handling apron that is located outside the airfield clear zone and will allow the transport of explosive cargo from the apron without disruption of airfield activities. The access road will eliminate cargo vehicles traveling on the runway, which will reduce the potential for damage to aircraft by foreign objects.

The ATTC tactical hardstand will provide temporary shelter and aircraft parking for maintenance services and system integration. The shelter will allow testing of system integration to be conducted in a semi-controlled environment and also will provide some protection from the environment during repairs and modification. The ATTC tactical hardstand is necessary to provide aircraft parking space due to increasing space limitations at the RSA airfield. The shelter is necessary to allow testing, maintenance, and system integration in a semi-controlled environment and will provide necessary indoor space for at least two CH-47 aircraft simultaneously, as well as multiple rotary winged aircraft during repairs, maintenance, and system integration. The ATTC hardstand will allow for an increased efficiency in maintenance, testing, and system integration without scheduling of current space, and thus decreasing time limitations that result from scheduling conflicts. The proposed parking lot will be used to accommodate the parking needs for the ATTC tactical hardstand as well as for the airfield. Parking space at the airfield is becoming increasingly limited due to an increase in airfield activities and more space is necessary for the increase in personnel.

Description of the Action

The proposed activities include the construction and use of an explosive cargo handling apron, an access road to the apron, the ATTC tactical hardstand, and a new parking lot for the airfield. The general location is shown on Figure 1.

The proposed explosive cargo handling apron consists of a paved area attached to the north end of the runway (Figure 2). The apron will include runway access, appropriate airfield lighting and striping, vehicle tiedowns, a storage building, utilities, and appropriate communication systems. The apron will consist of enough room to allow the aircraft to turn around. A six foot chain-link perimeter security fence will be placed around the facility for force protection and antiterrorism requirements. Although the disturbance area for the project is approximately 260,000 ft^2, the actual construction will be much smaller. A one-lane roadway also will be constructed to provide cargo vehicle access to the apron without traveling down the runway. The access road will be situated outside the airfield clear zone. The roadway should be less than 10 feet in width and will stretch from the apron to airfield access roads near the center of the airfield for an approximate distance of 4500 feet. The construction area for the access road is about 50 feet wide.

The explosive cargo handling apron will be used to load and unload shipments of explosives up to 100,000 pounds of net explosive weight. Approximately 15 explosive cargo shipment transfers are conducted per month. Explosive operations up to 50,000 net explosive weight will be conducted on normal day-to-day basis with a quantity safety distance of 1,474 feet from the center of the apron. The portion of the safety fan that is not located within the airfield clear zone may be placed within a perimeter fence as a safety and security measure. Explosive cargo shipment operations greater than 50,000 pounds would be considered a special event and wound require the safety fan to increase to 1,857 feet. Cargo vehicles would travel to and from the apron using the access road.

The ATTC hardstand will consist of two concrete slabs, a temporary shelter, and asphalt taxiways. The concrete slab nearest to Airfield Road will be approximately 550 feet long and 100 feet wide (55,000 ft^2), with the shelter approximately 220 feet in length and 100 feet in width (22,000 ft^2) located in the center. Another slab, approximately 100 feet by 100 feet (10,000 ft^2) will be located about 150 feet south of the shelter. An asphalt taxiway (35 feet wide and 350 feet long) will connect the biggest slab to Airfield Road, while two asphalt taxiways (35 feet wide and 300 feet long each) will connect the open slab areas, which will be used for aircraft parking. A parking lot for airfield personnel, approximately 500 feet long and 300 feet wide (150,000 ft^2), will provide additional parking space.

The temporary shelter and aircraft parking area will be used to conduct routine maintenance and system integration for the aircraft. Approximately 10 personnel will occupy the temporary shelter. Fixed-wing aircraft and rotary winged aircraft systems and subsystems will be repaired and modified inside the semi-controlled environment of the shelter. Current and new aviation technologies and components will be integrated into air vehicles. The air vehicles will then be examined for potential aircraft operation and air suitability. The outside parking areas will be used for activities that are not suitable to be conducted in the shelter, including fueling operations and some mechanical repairs that need more room than is available in the shelter. The shelter should provide enough room to fit two CH-47 aircraft simultaneously. Some engine repair and vehicle repair will be conducted on-site. Routine maintenance conducted on-site will include, but is not limited to, fueling, oil changes, hydraulic fluid changes, and changing of other lubricants. Aircraft fuels, oils, hydraulic fluid, lubricants, and batteries will be stored on the hardstand and inside the shelter. Aircraft fuselage washing and engine flushing will not be conducted on-site. Welding will not occur inside the shelter. No fabrication of metals or painting will occur on site. The landing area will be used for fueling, ground testing, engine run-ups, and take-off and landing when allowed during visual flight rule conditions. The proposed parking lot will be used to accommodate parking needs for airfield personnel, employees, and visitors.

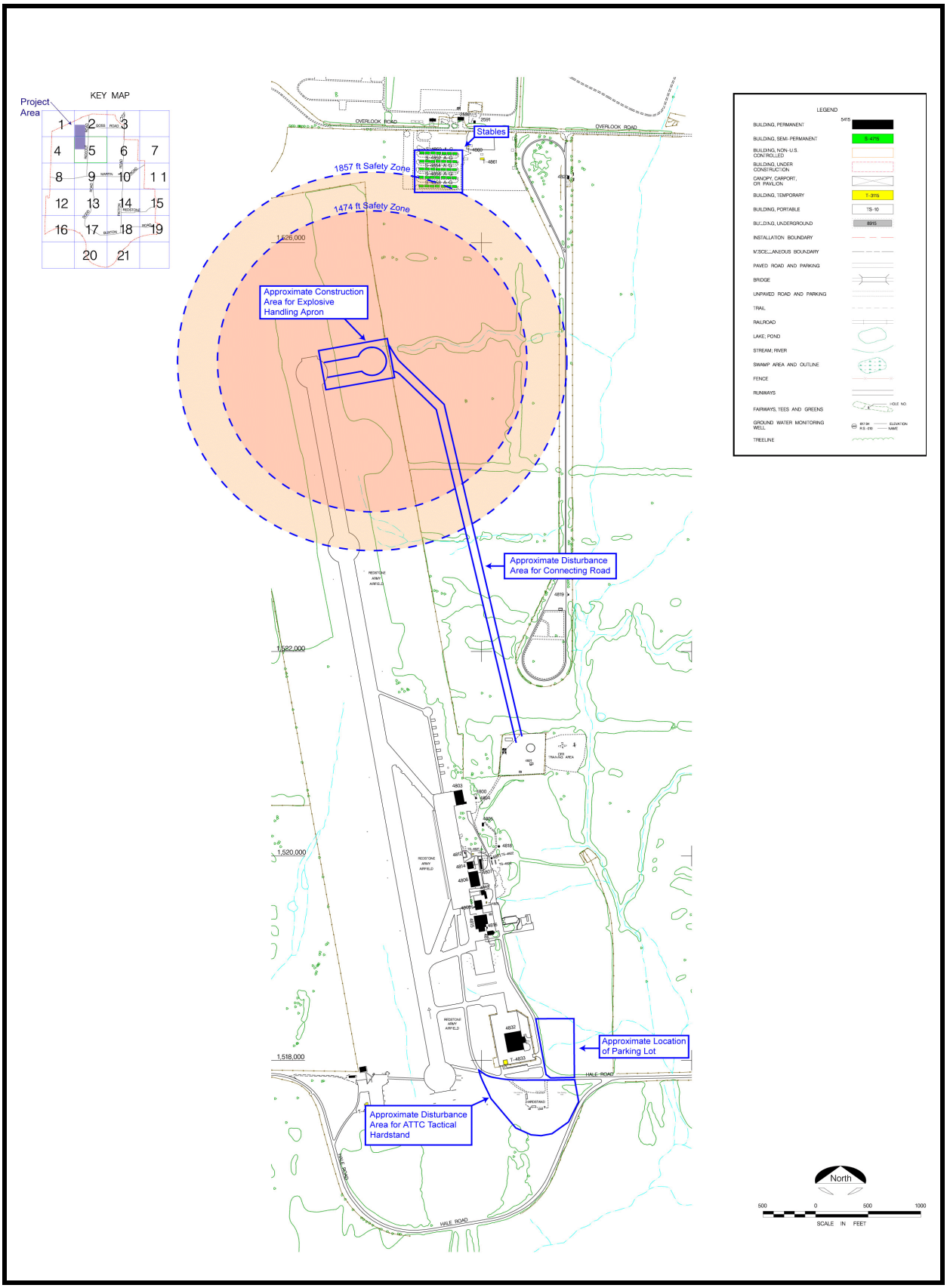

Figure 1. Redstone Arsenal Base Master Plan Maps 2 and 5 Illustrating the Area of Proposed Action.

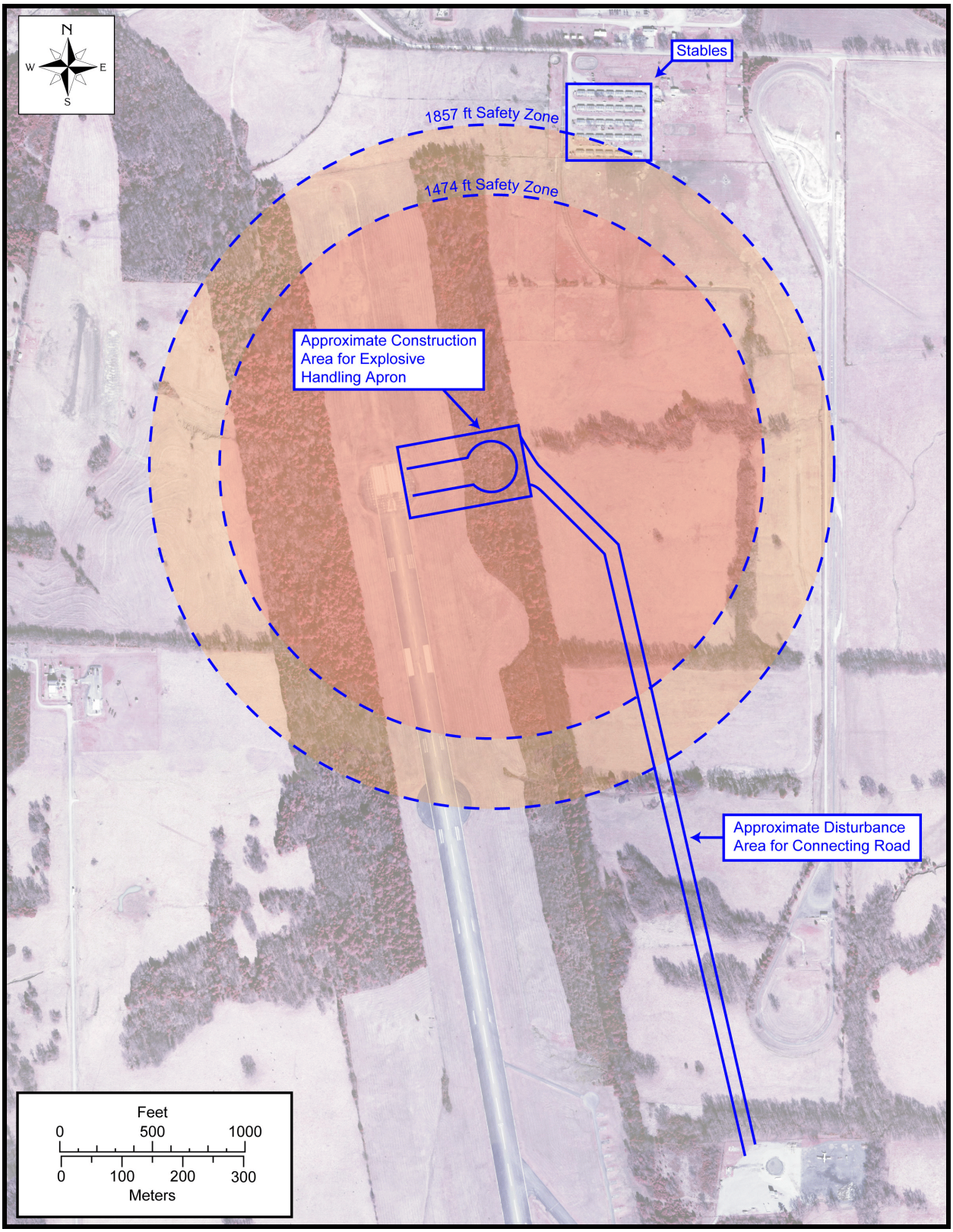

Figure 2. Aerial Photograph Illustrating the Proposed Explosive Handling Apron and Connecting Road.

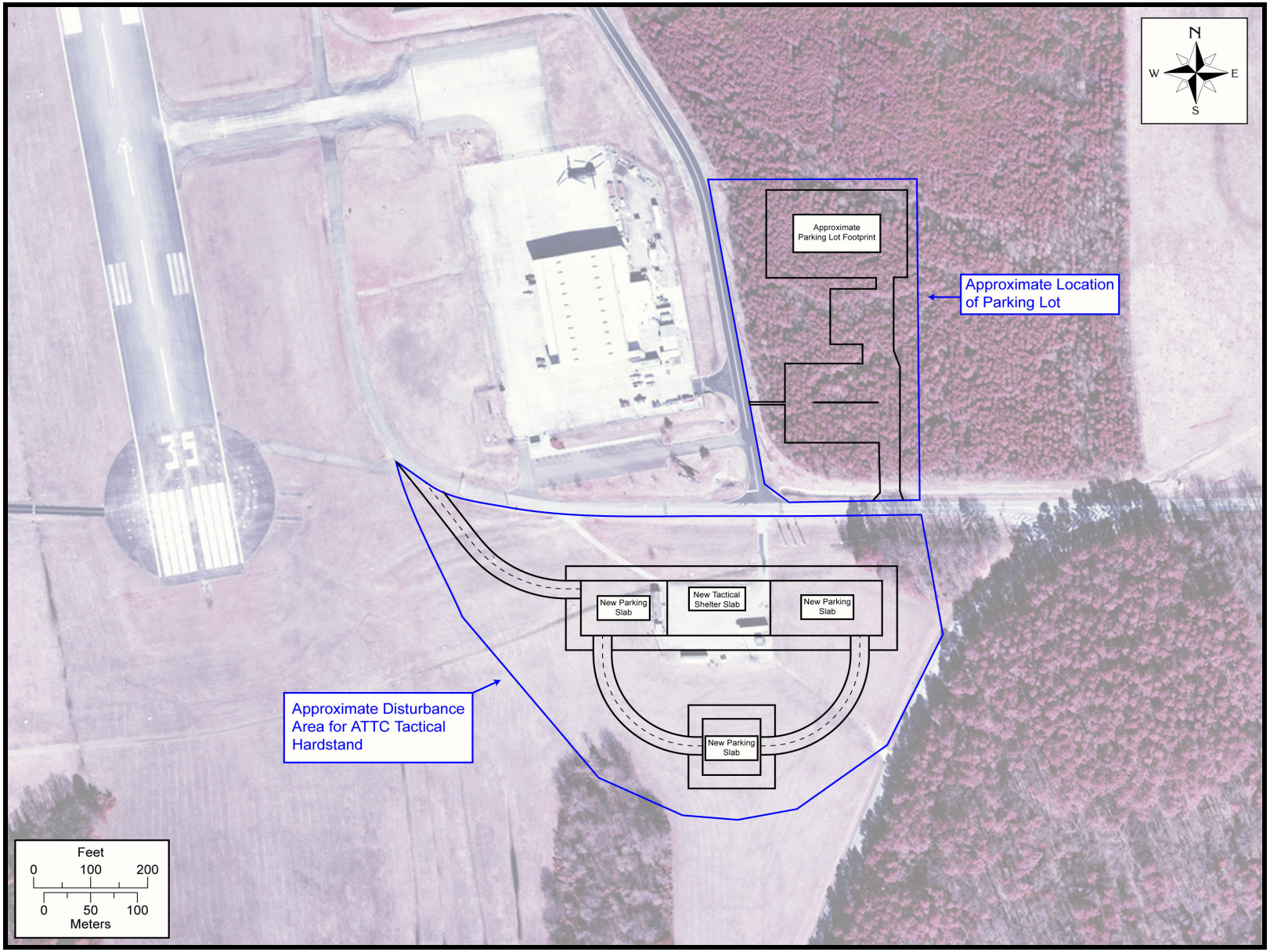

Figure 3. Aerial Photograph Illustrating the Proposed ATTC Tactical Hardstand and Parking Lot.

Alternatives

Two alternatives have been considered for the proposed project, the proposed action and a no-action alternative.

Proposed Action. The proposed action consists of the construction and operation of an explosive cargo handling apron, a connection road for the explosive cargo handling apron, the ATTC hardstand, and a parking lot. The proposed location for the project is at the Redstone Arsenal Airfield. A general location of the project is shown on Figure 1 and the approximate project construction area is shown on Figures 2 and 3. The disturbance area for the explosive cargo handling apron is approximately 260,000 ft^2. The connection road for the explosive cargo handling apron will disturb approximately 225,000 ft^2 during construction. The proposed parking lot will disturb approximately 150,000 ft^2 during construction and the ATTC hardstand will disturb approximately 480,000 ft^2. The total area disturbed during construction of the proposed project is approximately 25 acres.

No-Action Alternative. Under the no-action alternative, the explosive cargo handling apron, the access road for the apron, the ATTC tactical hardstand, and the parking lot would not be constructed. If the explosive cargo handling apron is not constructed, then explosive cargo loading and unloading will continue on the existing runway and disrupt the airfield operations through temporary closures. The potential disaster risk is high since the explosive-laden aircraft remains on the runway for shipment transfer activities. The safety waiver under which the explosive cargo handling currently operates was allowed under the condition that the waiver would not be renewed. The safety waiver will expire and explosive cargo shipments will have to use less efficient methods of transportation to provide explosives for research and development activities at RSA. Air transport of explosive cargo simplifies the security concerns for the shipment, but other shipping methods would increase the safety and security requirements. If the proposed explosive cargo handling apron is not constructed, then the RSA research and development activities will be seriously impaired and the mission of the airfield to provide support to research and development will be degraded. Significant impacts to health and safety could occur as a result of the no-action alternative.

Without the proposed access road, explosive cargo vehicles will still use the runway to transport cargo. The potential for damage to aircraft from foreign objects would continue to be high. In addition, airfield operations would continue to be disrupted by temporary closures during cargo shipments. If the access road is not constructed, then airfield operations will be impaired due to the disruptions from the transport and potential damage to aircraft from foreign objects would continue to be high.

If the proposed ATTC tactical hardstand is not constructed, then RSA airfield operations could be hindered due to parking and maintenance space limitations as a result of increased operations. Additional space will be required to perform maintenance, testing, and system integration in a semi-controlled environment. If this space is not provided, then proposed airfield operations could become restricted due to a lack of necessary space. Appropriate semi-controlled environment is necessary to conduct some maintenance activities, as well as repair and system modification, and, if additional controlled environment space is not provided, then aircraft operability and airworthiness could be impaired. Time requirements for scheduling of interior space for testing, maintenance, and system integration will continue to increase.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The areas of environmental consideration were air quality, health and safety, biological resources, cultural resources, hazardous materials and waste, geology and soils, transportation, infrastructure, land use, noise, socioeconomics, and water resources.

The assessment of potential environmental impacts and the determination of their significance are based on the requirements in 40 CFR 1508.27. Impacts are evaluated at three levels: (1) No impact—no impact is predicted; (2) No significant impact—impact is predicted, but the impact does not meet the intensity/context significance criteria for the specific resource; and (3) significant impact—an impact that meets the intensity/context significance criteria for the specific resource is expected. Analysis of impact significance is determined using compliance standards or best professional judgement.

Air Quality

Under the Clean Air Act, Federal actions must not cause or contribute to any new violation of air quality standards, increase the frequency or severity of any existing violation, or delay the timely attainment of any air quality standard or interim milestone.

Redstone Arsenal is located in Madison County, which has an attainment designation for all primary and secondary pollutant standards stipulated under the NAAQS. Madison County and the City of Huntsville, and Limestone County compose the Huntsville Metropolitan Statistical Area (MSA). In 1997, the EPA revised the ozone standard from a 1-hour standard to an 8-hour standard. The Huntsville MSA and RSA are in attainment for all Federal air quality standards. The proposed operations will not add any appreciable air emission-producing activities to those currently produced at the airfield, therefore, no significant impact to air quality is anticipated.

The State of Alabama, Department of Environmental Management (ADEM) issues air permits for RSA. RSA has a Title V Air Permit (Permit #7090007) issued July 7, 2003 by ADEM that allows RSA to regulate all emission sources under one permit. The permit does not impose maximum emission limits since there are no major air emission sources on RSA.

Construction-related air quality impacts may result from fugitive dust (particulate matter) and construction equipment emissions. Emissions can be associated with land clearing, drilling and blasting, ground excavation, and cut and fill operations. Fugitive dust and particulate emissions will be generated during construction activities. Dust emissions vary with level of activity, the specific operation, and prevailing meteorological conditions. Combustion emissions will be generated during construction by heavy construction vehicles and equipment and by vehicular traffic during operations of the facility. Emissions, however, will be below the regulated amounts for clean air standards. Since the Huntsville MSA is an attainment area for all federally regulated pollutants, the proposed construction activities would not have a significant impact on the area air quality. Contractors would be required to implement and follow construction best management practices (BMP) and ensure that construction vehicles contain standard vehicle emissions control devices. Fugitive dust from ground-disturbing activities could be reduced up to 50 percent by regular site-watering practices as necessary.

Health and Safety

The standards applicable to the evaluation of health and safety effects differ for workers and the public. OSHA (29 CFR) is responsible for protecting worker health and safety in non-military workplaces. For Army operations, Army Materiel Command Regulation (AMCR) 385-100, *Safety Manual*, establishes the basis for worker safety programs. Protection of public health and safety is an EPA responsibility (40 CFR). Additional safety responsibilities are placed on the DOT (for transportation issues (49 CFR), the DoD, and the Department of the Army (program requirements established in AMCR 385-100).

Health and safety impacts could occur during construction of the proposed airfield projects. Implementation of established safety procedures and Site Specific Health and Safety Plans would minimize potential impacts to health and safety from proposed activities. Governing safety regulations including AMCR 385-100, *Safety*

Manual, and all appropriate OSHA regulations including 29 CFR Part 1926, *Safety and Health Regulations for Construction*, would be adhered to during the course of all construction activities. The selected building contractor would comply with all applicable Federal, state, and local laws and regulations. Construction activities will have to be coordinated with the airfield to minimize safety risks to construction personnel.

During operations at the explosive cargo handling apron, the quantity safety distance will be 1,474 feet during normal operations which consists of cargo up to 50,000 pounds of net explosive weight (Figures 1 and 2). All persons will be removed from the safety arc during explosive cargo transshipments. A system of signage and warning lights will be placed around the 1,474 foot safety arc. The warning lights would be activated during transshipment operations of explosive cargo. The explosive cargo handling apron would be fenced with a six foot chain-link perimeter security fence. Transshipment operations of explosives greater than 50,000 and up to 100,000 pounds of net explosive weight would be considered a special event and a special operating procedure would be developed. This would likely include removal of personnel and visitors at the horse stable, the adjacent road course test area, and local farmers using the adjacent agricultural areas. A warning system will need to be developed for transshipment operations of 100,000 pounds of net explosive weight. Operations will be conducted according to appropriate Army safety protocols for explosive transshipment activities. An accident plan detailing protocols and procedures may be necessary if such a plan is currently not available.

The proposed construction and operation of the ATTC hardstand/hangar, the proposed parking lot, the explosive cargo handling apron, and the access road will have no significant impacts on health and safety.

Biological Resources

The proposed location of the explosive cargo handling apron consists primarily of a developed area near the current runway that is covered by lawn-type grasses and a relatively mature mixed pine/hardwood stand (Figure 2). Approximately 3.2 acres of the pine/hardwood stand will be cleared during construction. The proposed access road will be located in pastures that are leased for agricultural purposes and in pastures that are used for installation horse activities. This area is primarily dominated by pasture and hay grasses although some small mixed pine/hardwood stands are located within the proposed location of the road. The actual area of the small stands to be cleared is variable and will depend on the exact location of the access road, which has not yet been determined. The approximate area of tree clearance for the road is around one acre. The proposed location of the access road will cross two drainages. The design likely will use culverts to accommodate the existing drainages, which typically do not have flowing water. The proposed area for the explosive cargo handling apron and the access road is of moderate quality for wildlife. The close proximity to the airfield and the nature of the pasture reduces the quality of habitat, therefore, reducing any effects to wildlife.

The proposed ATTC hardstand is located within the developed area of the airfield. Lawn-type grasses and a small mixed pine/hardwood stand are present within the proposed project construction area (Figure 3). The small stand consists primarily of loblolly pine, cedar, and southern red oak. The average diameter at breast height (DBH) for all species was 8 to 10 inches. The tree clearance area for the ATTC hardstand is approximately 0.5 acre. Due to the close proximity to the airfield and the existing development in the project area, the area is of relatively low productivity and low habitat quality for wildlife.

The proposed parking lot construction area (approximately 2 acres) is dominated by an immature loblolly pine stand (approximately 3.4 acres) of four to six inches at DBH. Some of the pines will be incorporated into the parking lot design for aesthetic values. The proposed parking lot location is adjacent to and contains some drainage features. These drainages do not typically have flowing water but will need to have appropriate drainage features incorporated into the design. A bio-retention pond may be required to minimize impacts

of run-off from the ATTC hardstand and the parking lot. This area is of low productivity and low habitat quality for wildlife.

Although no wildlife was observed at the individual locations of the proposed construction project, a complete list of wildlife species for the installation is available (Godwin and Hilton 1995). Based on the RSA wetland inventory report and a site survey, no wetlands are present on the site or immediately adjacent to the proposed project location (Swords and Tiner 2002). There are no 100-year floodplains located within the proposed project area (AMCOM, *Master Plan Land Use Analysis* 1999). There are no unique habitat types located on the proposed project areas. Overall, the proposed project areas are of relatively low productivity and low habitat quality for wildlife. There are no significant impacts to biological resources as a result of the proposed action.

Threatened and Endangered Species. There are no Federally listed species within or immediately adjacent to the proposed project location. The proposed project is, however, located within the groundwater protection area for the Federally Endangered Alabama Cave Shrimp. Although impacts to the Alabama Cave Shrimp and the protected habitat are not anticipated, measures would be taken to prevent any discharges into groundwater or surface water. During construction, routine maintenance such as oil changes would not occur and the dumping of hazardous waste/materials would not occur. A spill plan and appropriate spill measures would be developed and used during operations. Secondary containment for fuel, oil, lubricants, batteries, and other hazardous materials will be required. All maintenance operations at the ATTC hardstand will be conducted on the concrete parking area. A spill mitigation kit would be present on-site during operations. No pesticides, herbicides, or saline solutions would be used in the project area. No new septic tanks will be placed in the area; the new building will tie into the existing sewer line. The tree removal will have no significant impacts on the Alabama Cave Shrimp.

Cultural Resources

Historic structures. No standing structures are present in the area of the proposed action.

Archaeological Resources. The area for proposed action has undergone Phase I archaeological survey (Alexander et al. 1998, Alexander et al. 1999, Alexander et al. 2000); the area is clear from an archaeological perspective. Federal cultural resource preservation statutes mandate that should cultural materials become apparent during construction activities, such materials will be identified and evaluated. Should human remains be encountered, Federal statutes specify that work will cease immediately and the proper authorities be notified (*Federal Register, Rules and Regulations*, Dec. 4, 1995, Vol. 60, No. 232:62161, §10.5). The Alabama Criminal Code (1995 edition, p. 387, §13A-7-23.1) states that any person who willfully removes or desecrates human remains, including American Indian burials and funerary objects, will be guilty of a Class C felony. The proposed action will have no impact on cultural resources.

Hazardous Materials and Waste

Hazardous Materials. Several Federal agencies oversee various aspects of hazardous material usage. The DOT regulates the safe packaging and transporting of hazardous materials, as specified in 49 CFR Parts 171 through 180 and Part 397. OSHA regulates the safe use of hazardous materials in the workplace in 29 CFR, primarily Part 1910. EPA regulations are found in 40 CFR. A spill plan will be developed for the site and measures will be taken to prevent discharges to groundwater including secondary containment for storage of fuels, oil, lubricants, batteries, and other hazardous materials. On-site vehicle maintenance will not occur during construction. Explosive cargo transshipment operations would be handled according to appropriate Army regulations and safety protocols. No persons would be allowed within the 1,474 foot safety arc during operations up to 50,000 pounds net explosive weight. During special transshipment events up to 100,000

pounds net explosive weight, no persons would be allowed within the 1,857 foot safety arc. An accident response plan may be required if one is not currently available.

Hazardous Waste. Waste materials are defined in 40 CFR 261.2 as "any discarded material (i.e., abandoned, recycled, or 'inherently waste-like')" that is not specifically excluded. This can include materials that are both solid and liquid (but containerized). Hazardous waste is further defined in 40 CFR 261.3 as any solid waste not specifically excluded that meets specific concentrations or has certain toxicity, ignitability, corrosivity, or reactivity characteristics. Oversight of hazardous waste issues is provided primarily by the EPA (as mandated by the Resource Conservation and Recovery Act [RCRA]) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and its extension, the Superfund Amendments and Reauthorization Act. An environmental site work plan evaluation checklist has been prepared for the proposed project areas indicating no CERCLA sites are present within the project areas (Appendix C).

Any hazardous materials and waste generated from construction would be identified, removed from the site, and disposed in accordance with current regulations. Waste materials generated from project activities will be handled through existing procedures maximizing recycling where possible. Construction contractors would have the option of disposing of all construction-related debris on or off RSA. Impacts from hazardous materials and waste from construction activities will not be significant since disposal of all debris and waste would be completed in compliance with current regulations. Any hazardous materials would be disposed of in proper accordance with all Federal and State laws and would be coordinated through the Installation Compliance Division of DES. Secondary containment for hazardous materials will be required. No pesticides (herbicides, rodenticides, insecticides, etc.) would be applied to the proposed project location.

No significant impact on hazardous materials and waste will occur as a result of the proposed action.

Geology and Soils

Tuscumbia Limestone is the underlying geologic formation of the proposed project area and for most of the installation. One characteristic of the formation is the cavities that form by the dissolution of the primary material, which is limestone. These cavities could lead to the formation of depressions and sinkholes in the project area. There are numerous caves scattered throughout the installation, but there are no known caves on the proposed project area. The unconsolidated surface material of the formation averages around 40 feet deep, but depth can vary from 20 feet to 80 feet (MICOM 1994).

The general soil association for the proposed project location is the Decatur-Cumberland-Abernathy association. This association is described as having generally well-drained, thick soils that occur on level to gently rolling terrain. Five soil units are found on the proposed project areas: Decatur silty clay loam, Emory silt loam, Urban land-Decatur-Emory complex, Waynesboro loam, and Waynesboro clay loam. All five of these soil units are described as well-drained. No hydric soils occur in these soil units or are present in the proposed project location. Decatur silty clay loam, Emory silt loam, and Waynesboro loam are described as prime farmland, but these soils are not protected under the Farmland Protection Policy Act since Federal lands are excluded from consideration (MICOM 1994, Clendenon 2002).

No significant impacts to geology and soils are anticipated as a result of the proposed project. The use of Best Management Practices for erosion control, topsoil management, and re-vegetation is required. During construction, preventive measures for erosion control will include the use of silt fences and re-vegetation with grasses as quickly as possible. The selected contractor will determine the site-specific geotechnical conditions. A NPDES permit will be required from ADEM due to the close proximity to Indian Creek and since the disturbance area for each portion of the project is greater than one acre. If the explosive cargo handling apron, the access road, the ATTC hardstand, and the parking lot are constructed as separate events, then a NPDES permit will likely be required for each construction event.

Transportation

Transportation addresses the various modes of transportation that provide access to and circulation within RSA. There are no rail or marine facilities on RSA that are used as major transportation centers. There is an airfield on the installation and helipads in various areas on the base, but they are not generally used as transportation centers. The installation has a well-developed network of roads. The main road nearest to the proposed airfield projects is Rideout Road, which also has the closest installation point-of-entry for the projects (Gate 9). Airfield Road and Hale Road provide connectivity to Rideout Road.

No significant transportation impacts are anticipated during the construction activities and operations associated with the proposed airfield projects. Interruptions to the roadway system outside the proposed construction area are not likely but would be scheduled in advanced if necessary. The existing roadway system is adequate to serve the proposed construction and operations. Some airfield activities and operations could be temporarily disrupted during construction but these disruptions would be scheduled in advance. Since construction of the proposed projects will not occur on the runway, impacts to air vehicle traffic should not be significant. The proposed action will not bring a significant increase in traffic load during construction and operation of the projects. Long-term airfield operations would improve traffic at the airfield since the proposed explosive cargo apron and access road would eliminate the need to delay air traffic during explosive transshipment operations.

Infrastructure

Infrastructure addresses those facilities and systems that provide power, water, wastewater treatment, and the collection and disposal of solid waste.

Electric Power. The Tennessee Valley Authority (TVA) through a number of local distribution companies provides electric service to RSA. Substantial excess capacity is available. The site under consideration for construction was previously utilized and has existing power poles and ready electrical service. There is sufficient power supply to RSA and this area to meet the expected increase in demand from the proposed action. There should be no interruptions to electrical service as a result of construction of the two projects. Any potential interruptions to electrical service will be scheduled in order to minimize the disruption. No significant impacts will occur as a result of the proposed action.

Natural Gas. RSA obtains natural gas through Huntsville Utilities at two locations: (1) an uninterruptible supply metered to the family housing areas and (2) uninterruptible supply metered to the rest of RSA through a station on Patton Road. The natural gas supply is of sufficient capacity to support the proposed action, therefore, no significant impacts are anticipated.

Water. RSA obtains the majority of its water supply from the Tennessee River. Potable water is supplied from two water treatment plants--Water Treatment Plants No. 1 and No. 3. An additional 1.0 million gallons per day (MGD) of potable water can be obtained from the City of Huntsville. Water Treatment Plant No. 2 is an auxiliary backup source for industrial water. The installation currently has treatment capacity of 5.5 MGD and a storage capacity of 2.585 million gallons. Allowing for an average of 50 gallons per day for 10 personnel, the average usage would equal 500 gallons per day, or 0.0005 MGD. The proposed construction activities and operations would have no significant impact on the system. The ATTC hangar would tie into the existing sewer line, therefore, no new septic tanks will be constructed in the Alabama Cave Shrimp protection area.

Wastewater Treatment. Wastewater is treated in a centralized plant, owned and operated by Tetra Tech, Inc. (National Pollutant Discharge Elimination System Permit Number AL0062863). Sewer services have a capacity for 9 million gallons per day. At present, the daily use is only 2.9 million gallons. Thus, the system

is capable of supporting the projected flow of 50 gallons per person for approximately 10 personnel that would result in an average flow of 500 gallons per day, or approximately 0.0005 MGD. The proposed construction activities and operations would have no significant impact on the system.

Solid Waste. RSA operates a 43 acre permitted landfill for the disposal of inert material such as construction rubble, insulation, asbestos material, treated lumber, masonry waste, rock, roofing, sand, and sheetrock. The landfill has a solid waste permit from ADEM (No. 45-03) that is valid until October 8, 2006. Concrete, millable asphalt, and trees are recycled at the landfill for use on the installation and should be segregated at the project site for transport to the landfill. Paper, cardboard, and steel also are recycled by the installation. DES Form 2435-R (Material Certification and Delivery Ticket), must be used when disposing of waste at the installation landfill and must be submitted at the time of disposal. Construction and demolition rubble must be transported by the construction contractor to the installation landfill or the Waste-to-Energy Plant.

All household trash and garbage generated on RSA is hauled off-post to the Huntsville Solid Waste Disposal Authority Waste-to-Energy Plant adjacent to RSA. The plant is designed to process up to 690 tons of household, industrial, and commercial waste per day. The project site is on the refuse collection schedule for solid waste disposal. Since all household trash is hauled off-post, there would be no impact to the installation landfill. Waste materials will be handled through existing procedures maximizing recycling where possible. No significant impacts to solid waste would result from the proposed project.

No significant impacts to infrastructure would be anticipated as a result of the proposed construction activities or operations at RSA.

Land Use

A *Redstone Arsenal Land Use Plan* was prepared in February 1999. This plan assists in planning for future growth and development, and promotes compatible and coordinated uses of land. The location of the site is identified in the land use plan the airfield developed area. There are no land use impacts that would result from the proposed project locations or operations. The construction of the proposed facilities in the airfield would promote the compatible and coordinated use of the land. The current policy/regulation on the installation requires that for new buildings, one square foot must be demolished equal to that of the new structure. The new temporary shelter on the ATTC hardstand also may fall under this policy/regulation. This will require coordination through the Directorate of Public Works and the Real Property office. The proposed access road will be located within an area leased for agricultural uses. The lease will have to be altered prior to construction and the current lessee may be reimbursed.

Noise

RSA has an Installation Compatible Use Zone (ICUZ) Program to identify noise sources within the installation boundary and minimize the encroachment of noise disturbances to sensitive areas both on and off the installation. Areas are designated as Zone I (acceptable), Zone II (normally acceptable), and Zone III (unacceptable) and were based on current and projected operations at the time of study. The ICUZ study was generally intended to inform the public of potential noise disturbances without disrupting or inhibiting various mission activities. Sources of noise disturbance are generally located so that a buffer exists between the activities and noise sensitive areas (AMCOM 1994). The proposed operations will not add any appreciable noise producing activities to those currently produced at the airfield.

Some noise will be produced during construction activities. The majority of the noise producing activities will occur during normal working hours. There is a sufficient buffer between the location of the proposed project and sensitive receptors to reduce noise impacts to a non-significant level. Although the City of

Huntsville has a noise ordinance, RSA is outside the city limits, and, therefore, the city noise ordinance does not apply to the installation.

Socioeconomics

Redstone Arsenal, as a major employer in Madison County, influences the local economy through direct employment of civilian and military personnel as well as through the local procurement of goods and services. Direct employment by RSA as well as employment directly generated from RSA's procurement expenditures has led to an increase in the level of economic activity and the creation of additional employment opportunities.

The proposed project will have no impacts on socioeconomics. Area socioeconomics should receive some benefit from the proposed action. While no permanent jobs would be added, the proposed construction activities would create some temporary jobs and funnel money into the local economy.

Water Resources

Surface Water. The Tennessee River is the southern boundary of the installation. Major systems that flow through the installation include Indian Creek, Huntsville Spring Branch, and McDonald Creek. All of which flow south into the Tennessee River. The closest surface water to the proposed project site is Indian Creek. Based on the *Redstone Arsenal Master Plan Land Use Analysis* (AMCOM 1999), the proposed project is not located within the 100-year floodplain.

The proposed access road crosses two drainages shown on the area USGS topographic map. These drainages do not typically have flowing water, but the current plan is to place culverts across the drainages. The culverts should provide an adequate drainage opening to accommodate the capacity. The proposed parking lot location is adjacent to and has some drainage features indicated on the area USGS topographic map. These drainages do not typically have flowing water but will need to have appropriate drainage features incorporated into the design. A bio-retention pond may be necessary to minimize impacts from run-off.

During construction, erosion control would include use of hay bales and silt fencing. The contractor would obtain a NPDES storm water construction permit from ADEM and comply with permit requirements, as well as all applicable Federal, state, and local laws and regulations. Run-off from construction could be mitigated by a variety of methods and could include the use of a retention pond for the bioremediation of materials in the run-off. No significant impacts are anticipated to surface water based on the proposed action.

Groundwater. The groundwater in local aquifers moves to lowland areas in the stream basin where it discharges through available openings and provides base flow to the local streams. The primary aquifer in the Proposed Action area is composed of Tuscumbia Limestone. The water is hard; the average pH of groundwater in Madison County is 7.5 (MICOM 1994). Groundwater flows generally to the south and can typically be found at an elevation of 580 feet above mean sea level (Geological Survey of Alabama 1975).

No significant impacts to surface or groundwater resources are anticipated from the proposed construction at the airfield. Erosion control during construction would include the use of hay bales and silt fencing to prevent the movement of soils via surface waters and to mitigate the potential damage. Run-off from the proposed construction would be handled by a variety of methods and may include the construction of a retention pond for run-off from the parking lot and the ATTC hardstand.

Measures would be taken to prevent any discharges into groundwater. During construction, routine maintenance such as oil changes will not be conducted on-site and the dumping of hazardous materials will not occur on-site. A spill plan and appropriate spill measures would be developed and used during testing and

training. Appropriate spill prevention measures would include secondary containment for stored fuel, drip pans under generators and stationary vehicles, and a spill mitigation kit would be present on site during operations. No pesticides, herbicides, or saline solutions would be used in the project area.

Conflicts with Federal, State, or Local Land Use Plans, Policies, and Controls

The proposed action would involve construction and operational activities in an area identified as the airfield clear zone in the *Redstone Arsenal Real Property Master Plan Land Use Analysis* (1999). The proposed use is consistent with current Installation land use plans. The construction of the proposed facilities at this site would promote the compatible and coordinated use of the land. Conflicts with Federal, regional, state, or local land use plans, policies, or controls would not be anticipated.

Energy Requirements and Conservation Potential

Anticipated energy requirements of program activities could be accommodated within the energy supply of the region. Energy requirements would be subject to any established energy conservation practices.

Natural or Depletable Resource Requirements and Conservation Potential

Other than the use of necessary building materials and construction vehicle fuels, no significant use of natural or depletable resources is required during construction. Some fuels will be used during the training and testing portions of the proposed action, but the proposed action will not use a significant amount of natural or depletable resources.

Irreversible or Irretrievable Commitment of Resources

The amount of building materials and energy required for this program is relatively small. Although the proposed activities would result in some irreversible and irretrievable commitment of resources such as wood, concrete, minerals, and labor, this commitment of resources is not significantly different from that necessary for many other similar building programs. It is similar to construction activities and operations that have been carried out on the installation over recent years.

Adverse Environmental Effects That Cannot Be Avoided

Adverse environmental effects that cannot be avoided include fugitive dust (particulate matter) and construction equipment emissions; noise from construction activities; and the disturbance of soils. However, through implementation of the program actions and mitigations described within this document, these effects can be minimized.

Relationship between Short-Term Uses of the Human Environment and the Maintenance and Enhancement of Long-Term Productivity

The Proposed Action would be undertaken in accordance with the RSA Master Plan EA (AMCOM 1994) that provides a management tool to aid in making operational support decisions by incorporating the concept of comprehensive planning.

Federal Actions to Address Environmental Justice in Minority and Low-Income Populations

No minority or low-income populations exist within the proposed project area or within Redstone Arsenal.

IMPACT COMPARISON

The following environmental impact matrix presents a summation of the proposed action and the no-action alternative.

Environmental Impact Matrix

Environmental Components	Proposed Action	No-Action Alternative
Air Quality	No Impact	No Impact
Health and Safety	No Significant Impact	Significant Impact
Biological Resources	No Significant Impact	No Impact
Cultural Resources	No Impact	No Impact
Hazardous Materials and Waste	No Significant Impact	No Impact
Geology and Soils	No Significant Impact	No Impact
Transportation	No Significant Impact	No Impact
Infrastructure	No Impact	No Impact
Land Use	No Impact	No Impact
Noise	No Impact	No Impact
Socioeconomics	No Impact	No Impact
Water Resources	No Significant Impact	No Impact

The proposed action to for the construction and use of an explosive cargo handling apron, the access road to the apron, the ATTC tactical hardstand, and the new parking lot presents no significant impacts to environmental resources. No negative cumulative impacts will occur with the implementation of the proposed action. The no-action alternative would result in no change and no impacts for all areas of environmental consideration except for Health and Safety. The no-action alternative would result in transportation of explosive cargo with higher safety risks and a higher risk trans-shipment handling area.

CONCLUSION

Inadvertent Discoveries

No Phase I archaeological survey, despite an intense effort and excellent research sampling strategy, precludes the possibility that an archaeological site may be discovered during subsequent construction or clearing activities. Federal cultural resource preservation statutes mandate that should artifacts become apparent during construction or clearing, such materials should be identified and evaluated by an archaeologist. Should human remains be encountered, Federal statutes specify that work shall cease immediately and the proper authorities be notified. (*Federal Register, Rules and Regulations*, Dec. 4, 1995, Vol. 60, No. 232:62161, §10.5).

Mitigative Measures, Licenses, and Permits

The selected building contractor would obtain and comply with the NPDES construction permit(s) from ADEM and all applicable Federal, state, and local laws and regulations.

Mitigative Measures:

Air--Fugitive Dust: During ground disturbance, regular site-watering practices will be implemented as necessary.

Air--Vehicle Emission: Contractors will implement and follow construction BMPs and ensure that construction vehicles have standard vehicle emissions control devices.

Biological Resources–Timber: Prior to construction, appropriate coordination with the Installation Forrester will occur to allow sufficient time for a commercial timber harvest.

Biological Resources--Erosion: Best Management Practices for erosion control, topsoil management, and revegetation will be practiced. Erosion control during construction activities will include using hay bales and silt fencing to prevent soil movement into drainage ditches or low-lying areas. The contractor will determine site-specific geotechnical conditions.

Biological Resources--Threatened and Endangered Species: Appropriate spill prevention measures would include secondary containment for stored fuel, oil, lubricants, batteries, and other hazardous materials. A spill mitigation kit would be present on site during operations at the ATTC hardstand.

Biological Resources–Agricultural Leases: Construction activities that will negatively impact land leased for agricultural purposes will require lease modification, possible cattle fence construction, and possible government reimbursement to impacted lessee. Construction activities that negatively impact Redstone Arsenal Saddle Activity also will require coordination with the Saddle Activity and possible fence construction to confine horses.

Biological Resources–Timber Harvest: Prior to construction of the access road and the explosive cargo handling apron, coordination with the Installation Forester will be done to allow sufficient time for a commercial timber harvest.

Surface Water: Contractor will comply with permit requirements that ADEM deems necessary to maintain the same run-off amount that existed prior to construction, as well as all applicable Federal, state, and local laws and regulations. Scondary containment for stored fuel, oil, lubricants, batteries, and other hazardous materials is required. A retention pond may also be required for the parking lot. Culvert openings should be large enough to accommodate the drainage. The parking lot will need to have appropriate drainage structures and incorporate measures to minimize run-off.

Groundwater: Erosion control during the construction period will include the use of hay bales and silt fencing to prevent the movement of soils via surface waters and to mitigate the potential damage. Any concerns with run-off from parking lot(s) and roofs will be mitigated using methods deemed necessary and appropriate by ADEM and/or EPA. Secondary containment for stored fuel, oil, lubricants, batteries, and other hazardous materials is required. A retention pond also may be required for the parking lot.

Specific Health and Safety Plans: Governing safety regulations with which the contractor will comply include: (1) AMCR 385-100, *Safety Manual*, and all appropriate OSHA regulations, including 29 CFR Part 1926, *Safety and Health Regulations for Construction* activities; EPA regulations (40 CFR), DOT regulations for transportation issues (49 CFR), the DoD and the Department of the Army program requirements established in AMCR 385-100. The selected building contractor will comply with all applicable Federal, state, and local laws and regulations. No persons will be allowed within the 1500 foot safety arc or the 2000 foot safety arc as appropriate conditions

apply. Explosive transshipment operations will be conducted according to appropriate Army regulations and safety protocols. An accident response plan may be required if one is not currently available.

Hazardous Materials/Waste: Any hazardous materials/waste generated from construction will be identified, removed from the site, and disposed in accordance with current regulations. Scondary containment for stored fuel, oil, lubricants, batteries, and other hazardous materials is required. Explosive transshipment operations will be conducted according to appropriate Army regulations and protocols.

Noise: Noise-producing construction activities will be confined to normal working hours to minimize noise impacts.

Transportation: Proposed construction immediately adjacent to the airfield will be scheduled in advance in order to minimize the disruption of airfield operations.

Infrastructure: Potential interruptions to electrical service would be scheduled in advanced to minimize disruption.

Permits:

1. Air: Title V Air Permit (Permit #: 7090007) issued by ADEM to RSA on July 7, 2003. Allows RSA to regulate all emission sources under one permit.
2. Solid Waste: The landfill has a permit from ADEM (No. 45-03) that is valid until October 8, 2006.
3. Wastewater Treatment: Tetra Tech, Inc., central plant owner-operator, holds National Pollutant Discharge Elimination System Permit Number AL0062863.
4. Stormwater: Contractor would obtain a NPDES storm water construction permit from ADEM. If the proposed projects are constructed in separate events, then the contractor may need a NPDES permit for each construction event.

APPENDIX A
References

Alexander, Lawrence S., H. Russell Campbell, Daniel J. Minnich, and James M. Moore. Phase I Archaeological Survey of Ground Disturbance Areas 4, 5, and 7 on Redstone Arsenal, Madison County, Alabama, Vols. I and II. Alexander Archaeological Consultants, Wildwood, Georgia. November 1998. **AHC 99-0223, Dec 21, 1998**

Alexander, Lawrence S., Daniel J. Minnich, H. Russell Campbell, and William D. Stevens. *Phase I Archaeological Survey of 1052 Hectares on Redstone Arsenal, Madison County, Alabama, Vols. 1 and 2.* Alexander Archaeological Consultants, 209 Walker Road, Wildwood, Georgia. Feb. 1999. **AHC 99-0344, Jan. 26, 1999**

Alexander, Lawrence S., Daniel J. Minnich, Jeff M. Thompson, and Emily J. Williams. *The 1999 Phase I Archaeological Survey of 2023 Hectares (5000 acres) on Redstone Arsenal, Madison County, Alabama. Vols. I and II.* Alexander Archaeological Consultants, P.O. Box 62, Wildwood, Georgia. Feb. 2000. **AHC 00-0752, April 3, 2000**

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Godwin, J.C., and J.L. Hilton. *Natural Heritage Inventory of Redstone Arsenal: Federally Listed Endangered, Threatened, Candidate, and State-Listed Species*. Alabama Natural Heritage Program, The Nature Conservancy, Oct. 1995.

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Army Materiel Command Regulation (AMCR) 385-100, *Safety Manual, A*ug. 1985.

Army Regulation 200-2, *Environmental Analysis of Army Actions*, Federal Register Vol. 67, No. 61, March 29, 2002.

APPENDIX B
Preparers of and Individuals and Agencies Contributing to the Environmental Assessment

LIST OF PREPARERS AND CONTRIBUTORS

Lawrence Alexander, Alexander Archaeological Consultants, Inc.
Bryan Phillips, Alexander Archaeological Consultants, Inc.
Max Schneider, Alexander Archaeological Consultants, Inc.
Emily Williams, Alexander Archaeological Consultants, Inc.

INDIVIDUALS/AGENCIES CONSULTED

Individuals/Agencies Contributing to the EA

U.S. ARMY GARRISON – REDSTONE ARSENAL:
DIRECTORATE OF ENVIRONMENTAL SAFETY (DES)
IC Installation Compliance
IR Installation Restoration
NR Natural Resources
Beverly Curry. Staff Archaeologist, NR.
Daniel J. Dunn. Division Chief, NR.
Gabrielle Ehinger. Ecologist, NR.
Jesse Horton. Garrison Forrester, NR.
Ramzi Makkouk. Chemical Engineer, IC.
Troy Pitts. Environmental Protection Specialist, IR
Dan Seaver. Environmental Engineer, IC
Mike Wassell. Chemist, IC.
Carolene Wu. Environmental Protection Specialist, NR

U.S. ARMY GARRISON – REDSTONE ARSENAL:
DIRECTORATE OF PUBLIC WORKS (DPW)
Joey Skinner. Engineering, DPW
Charles Stewman. Engineering, DPW
John Green. Master Planning, DPW
L. Dwain Elder. DPW

Agencies/Organizations Sent Copies of the Assessment
To meet CEQ Regulations of NEPA, U.S. Army is circulating this EA to:

U.S. Army Garrison-Redstone, DES, Natural Resources, Redstone Arsenal, Alabama.
U.S. Army Garrison-Redstone, DPW, Master Planning Division, Redstone Arsenal, Alabama. U.S. Environmental Protection Agency, Region IV, Office of Environmental Assessment, Atlanta, Georgia.
U.S. Fish and Wildlife Service, Ecological Services Division, Daphne, Alabama.

APPENDIX C
Environmental Site Work Plan Evaluation Checklist

Environmental Site Work Plan Evaluation Checklist
(Non-RI/FS/ROD)

Site / Activity Information	
Environmental Site Number: NA	Project Name or DPW Tracking #:DES # 1051-04 Airfield area project
Name of Requestor:Joey Skinner Phone #: 955-8830	Contact for Additional Information: Name: Joey Skinner Office Symbol: AMSAM-RA-DPW-EN-AC Phone:955-8830 Bldg. # or Area: - Joey.Skinner@redstone.army.mil

A Project Work Plan is required to be submitted through DPW for an environmental evaluation. The Directorate of Environment and Safety may require other submittals before any job commences.
Required Submittals if **CERCLA** Site is Affected:

☐ - Key Personnel List - Project Manager, Safety Officer, etc.
☐ - Project Safety and Health Plan
☐ - Project Work Plan (attached)
☐ - Other, Specify:

☒ COPIES OF REQUIRED SUBMITTALS SHALL BE FORWARDED TO AMSAM-RA-DES-IR BEFORE JOB COMMENCES

Reviewer Certification / Recommendation

1. Based on my review of the data provided about the nature of the work to be performed this activity is:
   ☒ - Approved, Project is not on an identified CERCLA site.
   ☐ - Approved, contingent on the controls noted being implemented.
   ☐ - Disapproved.

2. Regulatory oversight concurrence ☐ - is / ☒ - is not - recommended by ☐ - ADEM, ☐ - EPA.

Primary Reviewer Signature (Dir. of Environment and Safety (DES)) John I. Blandamer Garrison/DES/Installation Restoration Division, 842-2836	Date 12 Apr 04
Secondary Reviewer Signature (Dir. of Environment and Safety (DES)) John I. Blandamer, Garrison/DES/Installation Restoration Division	Date 12 Apr 04

Regulatory Agency Review

ADEM Signature: Date:	☐ - Concur ☐ - Do Not Concur ☐ - Conditional Concurrence (See below)	EPA Signature: Date:	☐ - Concur ☐ - Do Not Concur ☐ - Conditional Concurrence (See below)

Additional Control Requirements	ADEM	EPA

Special Instructions / Restrictions / Notes

This work is not within the boundaries of any CERCLA site or any former OE/UXO areas. Work is not planned within any RCRA site.

APPENDIX D
Public Notice

April 2004

FINDING OF NO SIGNIFICANT IMPACT (FNSI)
ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF THE EXPLOSIVE CARGO HANDLING AND THE AVIATION TECHNICAL TEST CENTER HARDSTAND AT THE REDSTONE ARSENAL AIRFIELD
REDSTONE ARSENAL, ALABAMA

The Army proposes to construct an explosive cargo handling apron and the Aviation Technical Test Center Hardstand at the airfield at Redstone Arsenal, Alabama. The environmental analysis addresses two alternatives, the proposed action and the no-action alternative.

Proposed Action: The proposed action includes the construction and operation of an explosive cargo handling apron, the access road for the apron, the ATTC hardstand, and a parking lot at the Redstone Arsenal Airfield. The explosive cargo handling apron will be used as a dedicated area for explosive transshipment operations up to 100,000 pounds of net explosive weight and includes a construction disturbance area of approximately 260,000 ft2. The access road will allow cargo shipments to be transferred from the apron without traveling on the airfield runway and includes a construction area of approximately 225,000 ft2.

The ATTC hardstand and temporary shelter will disturb approximately 480,000 ft2 and will be used as a dedicated area for aircraft parking, fueling, maintenance, testing, and system integration. The ATTC hardstand will provide a dedicated area and a semi-controlled environment for maintenance and testing, and system integration for fixed-wing and rotary-winged aircraft. The proposed parking lot will disturb approximately 112,500 ft2 during construction and provides additional parking space to accommodate personnel and visitors.

No-Action Alternative: Under the no-action alternative, the explosive cargo handling apron, the access road for the apron, the ATTC tactical hardstand, and the parking lot would not be constructed. Explosive cargo loading and unloading will continue on the existing runway and disrupt the airfield operations through temporary closures. RSA research and development activities will be seriously impaired and the mission of the airfield to provide support to research and development will be degraded. Cargo vehicles would continue to use the runway to transport cargo. The potential for damage to aircraft from foreign objects would continue to be high and airfield operations would continue to be disrupted by temporary closures during cargo shipments.

RSA airfield operations could be hindered due to parking and maintenance space limitations as a result of increased operations. Additional space will be required to perform maintenance, testing, and system integration in a semi-controlled environment. If this space is not provided, then proposed airfield operations could become restricted due to a lack of necessary space. Time requirements for scheduling of interior space for testing, maintenance, and system integration will continue to increase.

Environmental Effects: Eleven broad environmental components or resources were considered to provide a context for understanding the potential effects of the proposed action and to provide a basis for assessing the significance of potential impacts. The areas of environmental consideration were air quality, health and safety, biological resources, cultural resources, hazardous materials and waste, geology and soils, transportation, infrastructure, land use, noise, socioeconomics, and water resources. Cumulative impacts of the proposed action were also analyzed.

No impacts were identified for land use and socioeconomic components. No significant impacts to the other environmental resources were found and anticipated impacts are mitigable. Best management practices will be used to minimize erosion. Appropriate spill prevention measures, including secondary containment for fuels and vehicle lubricants, as well as spill mitigation kits will be used during operation of the ATTC hardstand. Appropriate Army regulations and protocols will be followed during explosive transshipment operations. A 1500 safety arc will be enforced for explosive transshipment operations up to 50,000 pounds of net explosive weight and a 2000 foot safety arc for operations up to 100,000 pounds. Noise producing construction activities will be confined to normal working hours. Proposed construction activities would be scheduled in order to minimize disruption of airfield operations. No significant cumulative impacts were identified under the alternatives.

CONCLUSION

The Directorate of Environment and Safety (DES) has prepared an EA that addresses the proposed action and evaluates the environmental impacts of the alternatives considered. Based on the EA for the construction of the explosive cargo handling apron and the ATTC hardstand at Redstone Arsenal, Alabama, April 2004, there would be no significant environmental impacts associated with this project that would require the preparation of an Environmental Impact Statement.

Should you wish to review the proponent?s Environmental Assessment for the Construction of the Explosive Cargo Handling Apron and the ATTC Hardstand at Redstone Arsenal, Alabama, or comment on this action, you may contact Ms. Pam Rogers, 256-876-4162, Commander, U.S. Army Garrison-Redstone, ATTN: AMSAM-IN (Ms. Pam Rogers), Redstone Arsenal, Alabama, 35898-5020, within thirty days from the date of this publication.

April 18, 2004

E10 The Huntsville Times, Sunday, April 18, 2004

APPENDIX E
Concurrence Letters

Phillips, Bryan W Contractor/AAC

From: Miller.Gerald@epamail.epa.gov
Sent: Monday, April 26, 2004 1:33 PM
To: Phillips, Bryan W Contractor/AAC
Subject: Re: FW: request for review of two Environmental Assessments at Redstone Arsenal

Dr. Gerald Miller
Senior Ecologist
NEPA Program Office
U.S. EPA, Region 4
(404) 562-9626
Miller.Gerald@EPA.GOV

Examined both EAs and determined that they were procedurally adequate. Environmental-wise, EPA would have no significant objections to construction of the noted facilities.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
P.O. Drawer 1190
Daphne, Alabama 36526

IN REPLY REFER TO:

04-0004

May 14, 2004

Mr. Brian Phillips
U.S. Army Garrison - Redstone Arsenal
Directorate of Environment and Safety
4488 Martin Rd. (AMSAM-RA-DES)
Redstone Arsenal, AL 35898-5000

Dear Mr. Phillips:

We are responding to your electronic mail, sent April 2004, requesting review of the Environmental Assessment (EA) for the Construction of the Explosive Cargo Handling Apron and the Aviation Technical Test Center Hardstand at Redstone Arsenal, Madison County, Alabama. We have reviewed the information and are providing the following comments in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. et seq.) and the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

The Service concurs with the assessment that the proposed operation and construction of the proposed apron and test center referred to in the EA will not likely affect listed species. Therefore, no further endangered species consultation will be required unless: 1) the identified action is subsequently modified in a manner that causes an effect on a listed species or designated Critical Habitat; 2) new information reveals the identified action may affect federally protected species or designated Critical Habitat in a manner or to an extent not previously considered; or 3) a new species is listed or a Critical Habitat is designated under the Endangered Species Act that may be affected by the identified action.

If you have any questions or need additional information, please contact Mr. Bruce Porter at (251)441-5864 or email bruce_porter@fws.gov.

Sincerely,

Larry E. Goldman
Field Supervisor

PHONE: 251-441-5181 www.fws.gov FAX: 251-441-6222
SHIPPING ADDRESS: 1208-B Main Street, Daphne, AL 36526

STATE OF ALABAMA
ALABAMA HISTORICAL COMMISSION
468 South Perry Street
MONTGOMERY, ALABAMA 36130-0900

F. LAWERENCE OAKS
EXECUTIVE DIRECTOR

TELEPHONE NUMBER
334-242-3184
FAX: 334-240-3477

January 26, 1999

Caroline Wu
U.S. Army Aviation and Missile Command
Directorate of Environmental Management and Planning
Redstone Arsenal, Alabama 35898

Re: AHC 99-0344
Cultural Resource Assessment
1052 Hectares on Redstone Arsenal
Madison County, Alabama

Dear Ms. Wu:

Upon review of the cultural resource assessment conducted by Alexander Archaeological Consultants, the Alabama Historical Commission has determined that we agree with the author's findings and recommendations. Of the 59 archaeological sites investigated, 28 of these are not eligible for the National Register and no further archaeological investigations are warranted. However, 31 sites were determined potentially eligible for the National Register and these sites should be avoided. If avoidance is not feasible, Phase II testing proposals should be developed for those sites to be impacted and the proposals should be forward to our office for review and approval prior to implementation.

We appreciate your efforts on this project. Should you have any questions or comments, please contact Stacye Hathorn or Greg Rhinehart of our office and include the AHC tracking number referenced above.

Sincerely,

Thomas O. Maher, Ph.D.
State Archaeologist

for: Elizabeth Ann Brown
Deputy State Historic Preservation Officer

STATE OF ALABAMA
ALABAMA HISTORICAL COMMISSION
468 South Perry Street
MONTGOMERY, ALABAMA 36130-0900

F. LAWERENCE OAKS
EXECUTIVE DIRECTOR

TELEPHONE NUMBER
334-242-3184
FAX: 334-240-3477

December 21, 1998

Bev Curry
U.S. Army Aviation and Missile Command
Directorate of Environmental Management and Planning
Redstone Arsenal, Alabama 35898

AHC 99-0223
Draft Cultural Resource Assessment
Ground Disturbance Areas 4, 5, & 7
Redstone Arsenal
Madison County, Alabama

Dear Ms. Curry:

Upon review of the cultural resource assessment conducted by Alexander Archaeological Consultants, the Alabama Historical Commission has determined that we agree with the author's findings that one archaeological site is not eligible for the National Register and forty-four archaeological sites are potentially eligible for the National Register. We also agree with the author's recommendations that the forty-four sites which are potentially eligible for the National Register should be avoided. If avoidance is not feasible, Phase II proposals should be developed and submitted to our office for approval prior to implementation.

We appreciate your efforts on this project. Should you have any questions or comments, please contact Stacye Hathorn or Greg Rhinehart of our office and include the AHC tracking number referenced above.

Sincerely,

Thomas O. Maher, Ph.D.
State Archaeologist

Elizabeth Ann Brown
Deputy State Historic Preservation Officer

EAB/TOM/SGH/GCR

STATE OF ALABAMA
ALABAMA HISTORICAL COMMISSION
468 SOUTH PERRY STREET
MONTGOMERY, ALABAMA 36130-0900

LEE H. WARNER
EXECUTIVE DIRECTOR

TEL: 334-242-3184
FAX: 334-240-3477

April 3, 2000

Carolene Wu
U.S. Army Aviation and Missile Command
Directorate of Environmental Management and Planning
Redstone Arsenal, Alabama 35898

Re: AHC 00-0752
Phase I Cultural Resource Assessment
2023 Hectares on Redstone Arsenal
Madison County, Alabama

Dear Ms. Wu:

Upon review of the cultural resource assessment conducted by Alexander Archaeological Consultants, the Alabama Historical Commission has determined that the overall report is very well done. We agree with the author that forty-five of the sites located are not eligible for the National Register. We also agree with the author that there are thirty-eight sites which are potentially eligible for the National Register. These should be avoided. If avoidance is not feasible, Phase II testing proposals should be developed and forwarded to our office for review and approval. Regarding site 1 Ma 903, we request clarification as to its National Register eligibility status. On page xii, paragraph 2, the report states that this site is potentially eligible. On page 244, the last line indicates that the authors recommend this site as ineligible. Finally, on page 313, first paragraph, the site is listed as potentially eligible. Please advise our office as to which is correct and we recommend the report be appended to reflect this.

We appreciate your efforts on this project. Should you have any questions or comments, please contact Stacye Hathorn or Greg Rhinehart of our office and include the AHC tracking number referenced above.

Sincerely,

Thomas O. Maher, Ph.D.
State Archaeologist

for: Elizabeth Ann Brown
Deputy State Historic Preservation Officer

EAB/TOM/SGH/GCR

cc: L. Alexander